





## **CRVS** country report

Papua New Guinea: Targeted interventions for sustainable change

March 2018





# Resources available from the University of Melbourne, Bloomberg Philanthropies Data for Health Initiative

#### CRVS course prospectuses

These resources outline the context, training approach, course content and course objectives for the suite of CRVS trainings delivered through the Bloomberg Philanthropies Data for Health Initiative. Each course focuses on a specific CRVS intervention or concept, and is designed to support countries to strengthen their CRVS systems and data.

#### CRVS Fellowship reports and profiles

The CRVS Fellowship Program aims to build technical capacity in both individuals and institutions to enhance the quality, sustainability and health policy utility of CRVS systems in Fellows' home countries. *Fellowship reports* are written by Fellows as a component of the program, and document, in detail, the research outcomes of their Fellowship. *Fellowship profiles* provide a summary of Fellows' country context in relation to CRVS, an overview of the Fellowship experiences, the research topic and the projected impact of findings.

## CRVS analyses and evaluations

These analytical and evaluative resources, generated through the Initiative, form a concise and accessible knowledge-base of outcomes and lessons learnt from CRVS initiatives and interventions. They report on works in progress, particularly for large or complex technical initiatives, and on specific components of projects that may be of more immediate relevance to stakeholders. These resources have a strong empirical focus, and are intended to provide evidence to assist planning and monitoring of in-country CRVS technical initiatives and other projects

## CRVS best-practice and advocacy

Generated through the Initiative, CRVS best-practice and advocacy resources are based on a combination of technical knowledge, country experiences and scientific literature. These resources are intended to stimulate debate and ideas for in-country CRVS policy, planning, and capacity building, and promote the adoption of best-practice to strengthen CRVS systems worldwide.

### CRVS country reports

CRVS country reports describe the capacity-building experiences and successes of strengthening CRVS systems in partner countries. These resources describe the state of CRVS systems-improvement and lessons learnt, and provide a baseline for comparison over time and between countries.

#### CRVS technical guides

Specific, technical and instructive resources in the form of *quick reference guides, user guides* and *action guides*. These guides provide a succinct overview and/or instructions for the implementation or operation of a specific CRVS-related intervention or tool.

#### CRVS tools

Interactive and practical resources designed to influence and align CRVS processes with established international or best-practice standards. These resources, which are used extensively in the Initiative's training courses, aim to change practice and ensure countries benefit from such changes by developing critical CRVS capacity among technical officers and ministries.

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## **Abbreviations**

BD4H Bloomberg Philanthropies Data for Health Initiative

COD cause of death

CRVS civil registration and vital statistics

DFAT Department of Foreign Affairs and Trade, Australian

Government

LRC Law Reform Commission

MCCOD medical certification of cause of death

UNICEF United Nations Children's Fund

VA verbal autopsy

WHO World Health Organization

## Key terms

**Completeness.** The completeness of registration is defined as the percentage of actual births or deaths in a population that are registered. Put another way, it is the number of registered births or deaths divided by the actual number of births or deaths in a population.

**Process mapping** is becoming an essential early step in the comprehensive assessment of any CRVS system. A process map is a visual snapshot of the end-to-end activities, stakeholders and requirements of a CRVS system.

**Verbal autopsy** is a structured interview carried out with family members and/or caregivers of the deceased to elicit signs and symptoms and other important information which can be used to assign a probable underlying cause of death.

This paper outlines the overall strategy for strengthening the civil registration and vital statistics (CRVS) system in Papua New Guinea, which is based on three pillars: supporting the re-establishment of a national CRVS committee; bringing together the disparate mortality data collection systems; and targeted capacity-building. In collaboration with government partners, two CRVS interventions were selected for prioritisation as part of the Bloomberg Philanthropies Data for Health (BD4H) Initiative: strengthening the collection and sharing of birth and death data from communities; and strengthening national mortality reporting. Many activities were subsequently progressed to achieve these two broad interventions, and are outlined as follows.

The status of CRVS in PNG CRVS improvement efforts

The importance of high-level political commitment
Current CRVS improvement efforts supported by BD4H
Improving the collection of birth and death data in the community
Strengthening mortality reporting
Moving forward

## Civil registration and vital statistics in PNG

PNG is developing a national identity system to connect government and non-government services with citizens. Papua New Guinea is a lower middle–income country occupying the eastern half of the island of New Guinea and its offshore islands (Figure 1). With such a young population (the median age is 22 years), the Government of Papua New Guinea is striving to ensure current and future generations can benefit from a well-functioning, connected civil registration system (Box 1). For example, Papua New Guinea's pursuit of a national identity system connecting government and non-government services with citizens is to be applauded. The Papua New Guinean Government recognises that reliable birth and death data generated from a quality civil registration and vital statistics (CRVS) system will be important for the government to progress evidence-based, cost-effective health policy, planning and monitoring activities to maximise the health and wellbeing of its diverse people – now and in the future.

<sup>1</sup> Mola G, Kirby B. Discrepancies between national maternal mortality data and international estimates: the experience of Papua New Guinea. Reproductive Health Matters 2013; 21:191-202.

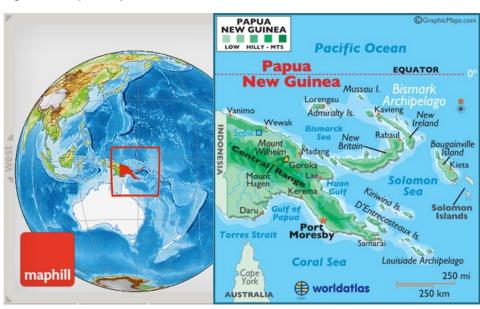


Figure 2: Map of Papua New Guinea

Source: Adapted from World Atlas, available at <a href="worldatlas.com/webimage/countrys/oceania/lgcolor/pgcolor.htm">worldatlas.com/webimage/countrys/oceania/lgcolor/pgcolor.htm</a> and Maphill, available at <a href="maphill.com/papua-new-guinea/location-maps/physical-map/highlighted-continent/entire-continent/">maps/physical-map/highlighted-continent/entire-continent/</a>

### Box 1: CRVS snapshot

Civil registration is the process through which major vital events that occur in a population – including births, deaths, marriages, divorces and adoptions – are officially recorded. Civil registration is the continuous, permanent, compulsory and universal recording of the occurrence and characteristics of vital events in a population, in accordance with the law.<sup>2</sup> CRVS systems generate vital statistics using the information contained in individual civil registration records, and such statistics include:

- Numbers and rates of births.
- Key characteristics of births, such as births by sex, location, and maternal age.
- Numbers and rates of deaths.
- Deaths by key characteristics such as age, sex, location and cause of death (COD).

<sup>2</sup> United Nations Department of Economic and Social Affairs (Statistical Division). Principles and recommendations for a vital statistics system, revision 3. New York, USA: UNSD; 2014.

## **Current CRVS improvement efforts**

Data on vital events are collected and stored by many different organisations, with limited integration.

Papua New Guinea is not alone in experiencing cross-cutting issues to improve its CRVS system; such challenges are similarly faced by many other low- and middle-income countries world-wide.<sup>3</sup> However, in the Papua New Guinean context, 80% of the country's eight million people live in rural and remote areas; more than 800 languages are spoken; and there are 22 provinces and 93 districts, and various parallel legal and governance systems. Unsurprisingly, a diverse range of community structures, and civil registration and health surveillance practices, exist. Although a lot of information on vital events is recorded, it is fragmented and held by different government and non-government agencies, and consolidating this information represents a key challenge. For instance, the health system holds records of many births, but there is no system for sharing these records with the civil registry. Church or parish registry records might also contain information on vital events that do not match the information in the local village's or ward's paper-based record – a record that may or may not be shared with district or national government CRVS agencies.

The country's tough terrain, limited transportation systems and recurring low-intensity conflicts all make it difficult for the government and its partners to obtain representative samples of the national population through surveys and censuses. These difficulties have also hampered CRVS strengthening efforts. In addition, there are multiple systems for mortality surveillance in Papua New Guinea, which result in limited understanding of mortality patterns in the country.

BD4H is working with sixteen countries and two cities to improve their CRVS systems. Despite these complexities, Papua New Guinea is eager to improve its CRVS system. As such, there is a large amount of goodwill and willingness to make change and centralise CRVS system improvement. This is evidenced by the Government of Papua New Guinea joining the Bloomberg Philanthropies Data for Health (BD4H) Initiative. BD4H is a sixteen country and two city initiative, funded by Bloomberg Philanthropies and the Australian Government Department of Foreign Affairs and Trade (DFAT), to improve national capacity, skills and knowledge for CRVS systems strengthening. Working in close collaboration with country partners, BD4H interventions include technical assistance to:

- Increase the registration of births and deaths.
- Improve the quality of COD information at hospitals.
- Apply verbal autopsy (VA) to better understand probable CODs in communities.
- Produce high-quality datasets and data analysis skills for population health policy and program analysis and decision-making.

A joint Civil and Identity Registry Office was established in 2015. Before joining BD4H, the Government of Papua New Guinea made substantial investments in strengthening the nation's CRVS system. For instance, the Brisbane Accord Group – including the Secretariat of the Pacific Community, Health Information Systems Knowledge Hub, World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) – worked with key country stakeholders in 2014 to complete a rapid assessment of the CRVS system and deliver CRVS-related training to government officials. Further, the joint Papua New Guinea Civil and Identity Registry Office opened, with its first provincial office in the Western Highlands in June 2015, and many more offices have opened since then. Papua New Guinea has reduced financial barriers for citizens to receive civil registry documents; the nation-wide registration for national identification and civil registry documents distributed by the new Civil and Identity Registry Office are free.<sup>4</sup>

<sup>3</sup> Mikkelson L, Phillips DE, AbouZahr C et al. A global assessment of civil registration and vital statistics systems: monitoring data quality and progress. Lancet 2015; 386:1395-1406.

<sup>4</sup> Ukaha J. Registration, civil documents: free. The National; 28 June 2016. Available at www.thenational.com.pg/registration-civil-documents-free-official/

Significantly, the national CRVS committee has been revitalised under the co-leadership of the new Papua New Guinea Civil and Identity Registry Office and the Ministry of Health. In addition to these two agencies, membership of the national CRVS committee includes the National Department of Health, the National Statistics Office, the Department of Provincial and Local Government Affairs, and the National Executive Council. These are supported by WHO, UNICEF, the United Nations Population Fund and DFAT. In collaboration with government departments and international agencies, the Law Reform Commission (LRC) is planning revisions to the national Civil Registration Act so it is consistent with current CRVS practices. The LRC further plans to align other relevant legislation such as the Coroners Act with the amended Civil Registration Act.

## **High-level political commitment**

The CRVS committee
has been involved in
conducting a legal
review of the CRVS
system, as well as
reviewing death
notification and
registration forms.

Three principal government stakeholders are involved in the Papua New Guinean CRVS system. First, the Ministry of National Planning and Monitoring, which includes the Civil and Identity Registry Office and the National Statistics Office. Second, the Ministry of Health and HIV/AIDS, which includes the National Department of Health, the Papua New Guinea Institute of Medical Research and the AIDS Council. Third, the Ministry of Provincial and Local Level Government Affairs. It is the National Statistics Office, however, that is responsible for the production of the nation's vital statistics, which are covered in the Papua New Guinea strategy for the development of statistics 2015–2024.<sup>5</sup>

Additionally, the national CRVS committee is involved in conducting a legal review of the country's CRVS system. In September 2017, a roundtable CRVS legal review meeting was held. In collaboration with government and international stakeholders, a workshop in late November 2017 further reviewed the laws and regulations that affect the CRVS system. The national CRVS committee also reviewed death notification and registration forms to streamline processes.

Papua New Guinea's commitment to improving CRVS, and the quality and availability of mortality data, is also evidenced by the nation's engagement in regional and international CRVS improvement plans, as well as the country's ratification of key international treaties that support birth registration.<sup>6</sup> Specifically, the Government of Papua New Guinea signed the Pacific Vital Statistics Action Plan,<sup>7</sup> and then committed in 2014 to the UNESCAP Asia–Pacific CRVS Decade (2015–2024) and the associated Regional Action Framework.<sup>8</sup> The framework includes assessing baseline indicators and establishing national targets for CRVS system improvements.<sup>9</sup> Additionally, Papua New Guinea has committed to support the Sustainable Development Goal 2030 Agenda, which will require robust data from CRVS systems to monitor and evaluate achievement of the goals, as will achievement of the Papua New Guinea Vision 2050.<sup>10,11</sup>

National Statistics Office. Papua New Guinea strategy for the development of statistics 2015–2024. Port Moresby, Papua New Guinea; Government of Papua New Guinea; 2014.

For instance, Papua New Guinea ratified the United Nations Convention on the Rights of the Child (1989) on 2 March 1993; see Office of the High Commissioner for Human Rights at http://tbinternet.ohchr.org/\_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=134&Lang=EN

See the Pacific Vital Statistics Action Plan at http://www.pacific-crvs.org/docs

See www.getinthepicture.org/asia-pacific-crvs-decade-2015-2024

<sup>9</sup> UNESCAP. Regional action framework on civil registration and vital statistics in Asia and the Pacific, Ministerial Conference on Civil Registration and Vital Statistics (CRVS) in Asia and the Pacific, Bangkok, 24–28 November 2014. Available at www.unescap.org/resources/regional-action-framework-civil-registration-and-vital-statistics-asia-and-pacifich

<sup>10</sup> Papua New Guinea, Sustainable Development Knowledge Platform. Available at https://sustainabledevelopment.un.org/ memberstates/papuanewguinea

<sup>11</sup> Papua New Guinea vision 2050. Available at https://sustainabledevelopment.un.org/content/documents/1496png.pdf

## CRVS strengthening activities as part of the BD4H Initiative

In collaboration with government partners, two CRVS interventions were selected for BD4H to focus on: strengthening the collection and sharing of birth and death data from communities; and strengthening national mortality reporting.

Many activities were subsequently progressed to achieve these two broad interventions, and are outlined as follows

## Strengthening the collection and sharing of birth and death data from communities

One of the objectives of Papua New Guinea's national CRVS committee is to strengthen the collection and sharing of birth and death data. As such, the committee was instrumental in creating the critical linkage between the national identity card and civil registration systems. The importance of this linkage cannot be understated; a robust civil registration system will play a key role in the success of the national identity system by:

Linking CRVS with the national ID system is critical for ensuring the data is accurate and up-to-date.

- Providing a universal record of the population eligible to be included in the national identity database.
- Ensuring that the identity database is updated with events of death, therefore ensuring clean and up-to-date data.

Thus, a fully functioning civil registration system – with complete coverage of the entire population, at birth and at death – is crucial.

As part of the improvement process, representatives from the National Department of Health and the Papua New Guinea Civil and Identity Registry Office attended enterprise architecture (also called process mapping, see Box 1) training in March 2017 to begin to map out the country's CRVS system. The national CRVS committee is developing business process maps to identify any gaps, bottlenecks or information 'dead-ends' within the system, and improve the notification and registration processes.

## Box 2: What is process mapping?

A process map is a visual snapshot of the end-to-end activities, stakeholders and requirements of a CRVS system. When undertaking a process mapping exercise for CRVS systems strengthening, countries should aim to create maps for four CRVS systems processes:

- 1. Process map for births in the community.
- 2. Process maps for deaths in the community.
- 3. Process maps for births in a health facility.
- 4. Process maps for deaths in a health facility. 12



de Savigny D, Cobos Muñoz D. Understanding CRVS systems: The importance of process mapping. CRVS development series. Melbourne, Australia: Bloomberg Philanthropies Data for Health Initiative, Civil Registration and Vital Statistics Improvement, The University of Melbourne; 2017.

PNG has participated in the BD4H fellowship program at the University of Melbourne as part of its capacitybuilding activities. As a result of process mapping, two technical personnel from the Performance Monitoring and Research Branch of the National Department of Health joined the BD4H team at the University of Melbourne (Australia) from October–December 2017. During their three-month fellowship, they were taught in correct mortality coding practices in line with the International Statistical Classification of Diseases (ICD-10), and how to analyse medical certificates of cause of death, among other activities. Through the fellowship program, the exchange of skills and knowledge has strengthened the National Department of Health's ability to identify the medical certificates of cause of death that are properly coded and analysed.

## Strengthening national mortality reporting

Most deaths (85–90%) in Papua New Guinea occur outside of health facilities, making the identification of cause-specific mortality challenging. Additionally, physicians are not routinely trained in the medical certification of cause of death (MCCOD, see Box 3), which negatively affects the quality and accuracy of information from hospital deaths. In response to these challenges, in 2017 the Government of Papua New Guinea engaged in the following activities, in partnership with BD4H, to generate more robust and widely available mortality data.

## Training in medical certification of cause of death

PNG has incorporated MCCOD training into their university curriculum for medical students.

A comprehensive MCCOD 'Train the Trainer' course for physicians was developed and rolled out in seven hospitals in 2017. This resulted in trainers facilitating their own MCCOD training activities in various health facilities across the country. The total number of individuals trained through the BD4H MCCOD training program included 97 physicians, 22 other health professionals, and 55 final-year medical students from the School of Medicine and Health Sciences, University of Papua New Guinea.

The incorporation of training on MCCOD into the medical student curriculum is a significant accomplishment; Papua New Guinea is one of only a handful of countries in the world to incorporate such training. Training on MCCOD provides graduating physicians with technical expertise to complete a medical certificate of cause of death. It also makes them aware of their important contribution, as individuals, to information about the distribution of mortality by cause, which is needed to develop evidence-based health policy. The training was a combined effort between BD4H; staff from the School of Medicine and Health Sciences, the University of Papua New Guinea; the National Department of Health; and the Papua New Guinea Civil and Identity Registry Office.

#### Box 3: What is medical certification of cause of death?

Worldwide, death certification is routinely conducted by trained medical physicians, supported by national policy and legal frameworks. The physician is often thus tasked – in the ordinary course of performing their professional duties – with recording the underlying COD on a certificate that is aligned with the WHO International Form of Medical Certificate of Cause of Death (often referred to as the 'medical death certificate'). To correctly fill in the medical certificate, the physician must identify the disease directly causing the death, and then trace the sequence of events back to the underlying COD. The physician must also enter other diseases or conditions contributing to the death in the death certificate form. However, very few physicians have received MCCOD training. This is the case in low, middle and high-income countries alike.<sup>13</sup>

<sup>13</sup> University of Melbourne. Reducing barriers to the accurate medical certification of cause of death. CRVS development series. Melbourne, Australia: Bloomberg Philanthropies Data for Health Initiative, Civil Registration and Vital Statistics Improvement, The University of Melbourne; 2018.

## Training in mortality coding

Mortality coding allows data on deaths to be tabulated and analysed for national statistics. Mortality coding involves transforming information on medical death certificates into alphanumeric codes. This allows for the tabulation and aggregation of mortality statistics for monitoring the patterns of mortality in the population. Five coding officers from the National Department of Health, the Port Moresby General Hospital and the Papua New Guinea Civil and Identity Registry Office completed International Classification of Diseases, 10th revision (ICD-10) training in May 2017. As medical death certificates have never been coded in Papua New Guinea before, this was a significant achievement. Fellowships have been awarded to two of the coders, who will develop the first report of mortality in Papua New Guinea, based on underlying CODs and ICD-10 coding.

### Training in verbal autopsy

Verbal autopsy (VA) is one of the only alternatives for ascertaining COD in a population where deaths occur in the community, and never come into contact with a physician who can medically certify the underlying cause of death. Thus, they are ideal in the Papua New Guinean context, where 85–90% of deaths occur outside of hospitals. VA was introduced into Tari in the Southern Highlands in 1972, and has since been used in several small population studies by the Papua New Guinea Institute of Medical Research. 14

Workshops have been held to discuss issues around data collection and transfer for births and deaths using automated methods. Historically, the completed VA questionnaire has been reviewed by physicians to ascertain the most probable COD. However, automated VA diagnostic instruments and tools are being developed to avoid the need for the time-consuming and expensive physician review (especially in resource-limited and remote settings). Subsequently, a workshop on VA was held in Alotau, Milne Bay Province, in July 2017, which addressed the issues of data collection and transfer for the notification of both births and deaths identified using VA. Representatives from the Papua New Guinea Civil and Identity Registry Office, the National Department of Health, and the Department of Provincial and Local Government Affairs together developed a simplified business process map for the notification and subsequent registration of births and deaths, and for data obtained from VA. Data are planned to be entered and transmitted (from handheld devices) into the electronic National Health Information System. A pilot program in Milne Bay will establish procedures for these automated VA systems, which will be a model for scaling up to other provinces.

#### Box 3: What is verbal autopsy?

Verbal autopsy is a method for collecting information about an individual's signs and symptoms prior to their death from their family or next of kin, and interpreting these to diagnose the likely or most probable cause of death (COD). The principal purpose of a VA is to describe the cause composition of mortality through the estimation of cause-specific mortality fractions (CSMFs). Verbal autopsy also serves as a cost-effective tool for filling the gaps in mortality data. Studies suggest that VA can provide population-level COD data similar in quality and reliability to MCCOD in hospitals. The principal purpose of a VA is to describe the cause composition of mortality through the estimation of cause-specific mortality fractions (CSMFs).

The VA process consists of three basic steps:

- 1. Setting up an interview by a trained VA staff member at the household level (or other appropriate place).
- 2. Conducting a structured interview to collect information on signs and symptoms of illnesses, and events that the deceased suffered before death.
- 3. Interpreting the interview data to diagnose the most probable COD (historically, this was done by physicians, however automated methods are now widely available).

<sup>14</sup> Gouda HN, Kelly-Hanku A, Wilson L, et al. 'Whenever they cry, I cry with them': reciprocal relationships and the role of ethics in a verbal autopsy study in Papua New Guinea. Social Science and Medicine 2016; 163:1-9.

<sup>15</sup> de Savigny D, Riley I, Chandramohan D, et al. Integrating community-based verbal autopsy into civil registration and vital statistics (CRVS): system-level considerations. Global Health Action 2017; 10:1272882.

Hernández B, Ramírez-Villalobos D, Romero M, et al. Assessing quality of medical death certification: concordance between gold standard diagnosis and underlying cause of death in selected Mexican hospitals. *Population Health Metrics* 2011; 9:38.

## Other training programs

BD4H has been offering training on the use of COD data for health planning and policy development at the provincial level within Papua New Guinea. BD4H staff from the University of Melbourne will continue to offer training for national-level health staff in the analysis, interpretation and use of COD data. Workshops will focus on using COD data for health planning and policy development, and will be held in both Melbourne and Papua New Guinea. Fellowships and other training programs on the use of mortality data for policy will be offered to Papua New Guinean government personnel.

## **Moving forward**

As is the case in many other low- and middle-income countries, birth and death notification, registration and certification in Papua New Guinea are not complete. However, the Government of Papua New Guinea has taken some critical steps for strengthening the civil registration and vital statistics system. Specifically, linking the national identification and civil registration systems is an important step in system strengthening. To continue improving its CRVS system and the mortality data it produces, ongoing legislative review will be required. Pragmatic interventions will need to be introduced – that is, 'doable' strategies for CRVS systems strengthening now, within the reality of Papua New Guinea's current landscape. Ongoing and greater collaboration between all CRVS stakeholders in Papua New Guinea will also be key.

## Related resources and products

## University of Melbourne, D4H Initiative, CRVS Knowledge Gateway: Library

## crvsgateway.info/library

CRVS country overview: Papua New Guinea. CRVS summaries.

Improving cause of death data: Strategies for hospitals. CRVS development series.

Integrating community-based verbal autopsy into CRVS: System level considerations. CRVS technical outcome series.

Intervention: Automated verbal autopsy. CRVS summaries.

Intervention: Improving CRVS system design. CRVS summaries.

Intervention: Medical certification of cause of death. CRVS summaries.

Intervention: Mortality coding. CRVS summaries.

Reducing challenges to accurate cause of death reporting by physicians. CRVS development series.

Understanding CRVS systems: The importance of process mapping. CRVS development series.

## University of Melbourne, D4H Initiative, CRVS Knowledge Gateway: Learning Centre

crvsgateway.info/learningcentre

Topic 2: CRVS governance and architecture. CRVS stakeholder analysis.

Topic 4: Cause of death in CRVS. The value of cause of death data; Medical certification of cause of death; Coding causes of death to statistical categories; Automated verbal autopsy; Incorporating verbal autopsy into the civil registration and vital statistics system.

Topic 6: CRVS tools. ICD training tools; Medical certificate of cause of death assessment tool; Automated verbal autopsy tools.

## University of Melbourne, D4H Initiative, CRVS Knowledge Gateway: Courses

### crvsgateway.info/courses

Data analysis and use.

Enterprise architecture/business process mapping for countries.

ICD-10 coding.

Medical certification of cause of death.

SmartVA.

## **Further reading**

Cobos Muñoz D, de Savigny D. Process mapping and modelling: a tool for visualizing system processes from end-to-end. In: de Savigny D, Blanchet K & Adam T (eds). *Applied systems thinking for health systems research*. Maidenhead, UK: Open University Press; 2017.







The program partners on this initiative include: The University of Melbourne, Australia; CDC Foundation, USA; Vital Strategies, USA; Johns Hopkins Bloomberg School of Public Health, USA; World Health Organization, Switzerland.

Civil Registration and Vital Statistics partners:







## For more information contact:

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